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#### Published:

with international search report

(88) Date of publication of the international search report:
18 March 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: BRASSICA SEEDS

(57) Abstract: Treated *Brassica* seeds and their extracts for use as a flavor and/or a flavor modifier in consumables. Treatment includes heating, and optionally grinding methods and/or recovery methods. Consumables include foods, beverages, health-care products, oral hygiene and oral care products, beauty-care products, and tobacco products. The extract contains elevated amounts of flavor and flavor modifier. One flavor modifier of the extract may be 2-furfurylthiol ("FFT"). A process for producing treated *Brassica* seeds extract.





### INTERNATIONAL SEARCH REPORT

Internat Application No PCT/CH 400142

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A01H5/10 A23L1/221

C07D307/00

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 A01H A23L C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, FSTA, BIOSIS, MEDLINE, EMBASE

C. DOCUMI	ENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	WO 96 38056 A (EUROP DE CONDIMENTS;LOUVRIER PHILIPPE (FR)) 5 December 1996 (1996-12-05) the whole document	1,3-11, 20
X	US 3 574 640 A (DOUGHERTY PAUL A JR) 13 April 1971 (1971-04-13) the whole document	1,3-11, 20
X	VELDSINK J M ET AL: "HEAT PRETREATMENT OF OILSEEDS: EFFECT IB IUK QUALITY" FETT - LIPID, WILEY-VCH VERLAG, WEINHEIM, DE, vol. 101, no. 7, July 1999 (1999-07), pages 244-248, XP000850712 ISSN: 0931-5985 the whole document  -/	1-11,20

X Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" earlier document but published on or after the international filling date  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  "O' document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filling date but later than the priority date claimed	<ul> <li>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>"&amp;" document member of the same patent family</li> </ul>
Date of the actual completion of the international search	Date of mailing of the international search report
1 August 2003	0 2. 12. 03
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer  Kania, T.

# INTERNATIONAL SEARCH REPORT

Internat	Application No
PCT/CH	00142

		PCT/CH /00142
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	VASUNDHARA T S ET AL: "Investigations into flavouring compounds formed in roasted brown mustard (Brassica juncea Linn.)."  NAHRUNG 1981 DEFENCE FOOD RES. LAB., MYSORE-10, INDIA, vol. 25, no. 7, pages 685-692, XP009014888 the whole document	1-17,20
X	SCHIEBERLE P: "Odour-active compounds in moderately roasted sesame." FOOD CHEMISTRY 1996 INST. FÜR LEBENSMITTELCHEM., LICHTENBERGSTRA. 4, D-85748 GARCHING, GERMANY, vol. 55, no. 2, pages 145-152, XP002249876 the whole document	14,15
A	HOFMANN T ET AL: "QUANTITATIVE MODEL STUDIES ON THE EFFECTIVENESSOF DIFFERENT PRECURSOR SYSTEMS" JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 46, 1998, pages 235-241, XP002146237 ISSN: 0021-8561	
E	WO 03 041515 A (BERCHTOLD PETER FRANCIS; WEIDEMAN ANDRIES WILHELM JOHAN (ZA)) 22 May 2003 (2003-05-22) page 4 - page 9	1-8,11,



Intel donal atton No.
PCT/CH 03/00142

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This international Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
Claims Nos.:     because they relate to subject matter not required to be searched by this Authority, namely:
· •
2. Claims Nos.: because they relate to parts of the international Application that do not comply with the prescribed requirements to such an extent that no meaningful international Search can be carried out, specifically:
Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report Is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  See PCT/ISA/210 annex
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.

#### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-17 completely; 20 partially

Process of forming treated Brassica seeds and process of forming 2-furfurylthiol by treating Brassica seeds, as well as products, in particular 2-furfurylthiol, obtained thereby as well as related subject-matter.

2. claims: 18,19 completely; 20 partially

Consumable and preparation for consumables comprising 2-furfurylthiol at defined concentrations, as well as realetd subject-matter.

## INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/CH Application No .

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9638056	A	05-12-1996	FR CA EP WO	2734689 A1 2196160 A1 0773724 A1 9638056 A1	06-12-1996 05-12-1996 21-05-1997 05-12-1996
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